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- Manufacture of fire-resistant silane-crosslinked polyolefins Ι

- Matsuda, Yutaka

- Sumitomo Bakelite Co., Ltd., Japan A

- Jpn. Kokai Tokkyo Koho, 7 pp. O

CODEN: JKXXAF

T - Patent

- Japanese A

C08L023/26 - ICM

C08F008/00; C08F8/42; C08J3/24; C08K3/22; C08K9/04

- 37-6 (Plastics Manufacture and Processing)

AN.CNT 1

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APPLICATION NO. DATE DATE PATENT NO. KIND

19990706 JP 1997-356921 JP11181188 Α N 19971225 - JP 1997-356921 R

- The polyolefins are manufd. by (1) mixing (i) polyolefin compns. contg. alpha.-olefin (co)polymers of d. .ltoreq.0.92 g/cm3 100, flame retardan 50-200, water absorbents 0.5-10, heavy metal deactivator 0.01-5 parts, a silanol condensation catalysts with (ii) H2O-free carrier polymers contg RR'SiY2 (R = olefinically unsatd. hydrocarbyl; Y = hydrolyzable org. group; R' = Y, hydrocarbyl other than aliph. unsatd. hydrocarbyl) and fr radical generators, at the temp. higher than the m.p. of the .alpha.-olefin polymers and (2) crosslinking by treating with H2O. 98 parts polyolefin compn. comprising Softrex D 9052 (ethylene-.alpha.olefin copolymer) 100, oleic acid-treated Kisuma 5B [Mg(OH)2] 120, stear

CDA acid-treated slaked lime 5, ADK Stab <u>deactivator</u>) 2, dibutyltin dilaurate metal (heavy √} 0.09,

0.09, <u>Irganox 1010 (antioxidant) 2</u>, and Sanwax 171P (lubricant) 0.5 part was mixed with 2 parts carrier polymer compn. comprising ethylene-Et acrylate copolymer 95, hydrogenated styrene-isoprene block copolymer 5, vinyltrimethoxysilane 45, and dicumy peroxide 2.16 parts, extruded, and soaked in hot water to give a tape showing good appearance, O index 31, gel fraction 77%, tensile strength

MPa, elongation 330%, good hot setting, and no discoloration by Cu wire. fire resistant silane crosslinked polyolefin manuf; unsatd silane carrie polymer crosslinking polyolefin; ethylene olefin copolymer

vinyltrimethoxysilane crosslinking

Isoprene-styrene rubber

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(hydrogenated, block, carrier polymer for silanes; prepn. of fire-resistant silane-crosslinked polyolefins)

 Polysiloxanes, preparation RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (polyolefin-; prepn. of fire-resistant silane-crosslinked polyolefins)

Crosslinking т

Fire-resistant materials

Fireproofing agents

(prepn. of fire-resistant silane-crosslinked polyolefins)

Polyolefins

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(prepn. of fire-resistant silane-crosslinked polyolefins)

9010-86-0, Ethyl acrylate-ethylene copolymer 25101-13-7, Ethylene-meth methacrylate copolymer RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(carrier polymetric or silanes; prepn. of fire sistant silane-crosslin polyolefins)

T - 1309-42-8, Kisuma 5B

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (flame retardant; prepn. of fire-resistant silane-crosslinked polyolefins)

T - 36411-52-6 , ADK Stab CDA 1

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (heavy metal deactivator; prepn. of fire-resistant silane-crosslinked polyolefins)

T - 25038-32-8

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(isoprene-styrene rubber, hydrogenated, block, carrier polymer for silanes; prepn. of fire-resistant silane-crosslinked polyolefins)

[T - 63411-54-1P, Ethylene-propylene-vinyltrimethoxysilane copolymer 85178-03-6P, 1-Butene-ethylene-vinyltrimethoxysilane copolymer RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (prepn. of fire-resistant silane-crosslinked polyolefins)